

EUROPEAN DEVOPS RIC POV: NAVIGATING A RETURN TO INNOVATION

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European DevOps Research Innovation Council (RIC) PoV: Navigating a Return to Innovation

IDC's lead analysts for Accelerated App Delivery, Jennifer Thomson, George Mironescu, and John O'Brien; members of the European DevOps Research Innovation Council; Dominic Wellington, director of market intelligence at MongoDB; and Eveline Oehrlich, chief research director at the DevOps Institute, put their heads together to come up with a collective viewpoint on how European organizations can best navigate the road to recovery.

What Is the IDC European DevOps RIC?

The European DevOps RIC brings together the founders, CEOs, and VPs of innovative DevOps players — ranging from start-ups, to well-known disruptors, right through to global players — to get a 360-degree view of what's happening in the market. IDC in Europe currently runs six RICs (AI, Security, Blockchain, Cloud, AR/VR, and DevOps) that have each created a community of leading IDC analysts and business leaders. Next on the agenda is a Sustainability RIC.

The RICs are founded on the principle of providing a professional framework that offers an ideal setting for collaboration, sharing, and open discussion. The European DevOps RIC was founded in 2019 and continues to innovate and push the boundaries of collaboration and new idea generation. In addition to the RICs, IDC has created a community group (IDC Tech Start-up & Scale-up Exchange) to connect IDC's innovation community and exchange advice, best practice, and market intelligence.

Introducing the Three-Hour European DevOps RIC Sprint

The past few months have been a catalyst for change, collaboration, and empathy. The lens through which we view the world is changing, and working models are adapting to encompass co-creation, collaboration, and sharing beyond normal working boundaries. The European DevOps RIC put accelerated collaboration and co-creation into action.

In a three-hour "workathon" we brought together over 100 years of experience to discuss and debate the role of DevOps in supporting European business recovery and accelerating a return to innovation.

Key Takeaways: Five Musts for Navigating the Road to Recovery

1. The journey to digital innovation and empowered teams must be deliberate, not accidental
2. There should be less capability-led planning and more product-led learning
3. Think about how to make cultural change actionable and measurable
4. Ensure collective ownership and purpose for continuous business value — it's not a sprint
5. Shed legacy technology and processes to achieve business resilience to navigate change

European DevOps RIC: Point of View

The Balancing Act

Even as we are faced with unprecedented challenges related to COVID-19 the need for organizations to support digital innovation capabilities, and ensure that software continues to work, has never been greater. Current global disruption has reemphasized that "survival of the fittest" is not linked to just size or scale but also to a company's ability to change, adapt, and be agile.

The responsibility to support business continuity and optimization strategies while ensuring that application systems are up and running is the top priority. But it's also a time for organizations to assess their exposure points and to plan and prepare solutions ahead of a return to growth and innovation. The current crisis is an important catalyst in getting organizations to rethink their operating models, organizational design, and changes that will augment digital capabilities and competitiveness long term.

Emergency Versus Long Term

Companies have been forced to adopt remote working, and it's important to use the correct framework to assess the results. As economies begin to reopen and companies assess protocols for returning to the office, it's important for that assessment to be realistic and to consider all factors.

On the one hand, initial lockdowns were rushed without much forward planning, so the initial reaction to working from home was a frantic scramble to make it work at all. Many things that had been working fine were suddenly forced to change. On top of the immediate logistics challenges, many workers also had to manage remote school and the loss of childcare options, while the psychological toll of isolation and the constant drumbeat of pandemic news cannot be ignored. Short-term unplanned working from home was largely viewed negatively by both employees and employers, as neither had been prepared for the new realities.

As the lockdown extended, however, fewer people wanted to return to the office as soon as possible, and organizations figured out new ways of working to take advantage of the situation. Small teams able to move fast and independently of others were often able to produce results sooner than expected. The changes were a forcing function, removing inertia and enabling transformation and consequent improvement.

The perceived success of working from home therefore also depends on organizations' cultural willingness to adopt agile working practices, with small semi-independent teams working in loose formation, as opposed to rigidly planned workflows.

Organizational cultural identities have been put to the test. Pre-COVID, close to one in two European organizations identified culture as the weakest link in scaling DevOps and achieving enterprise agility. The past few months have clearly demonstrated that we should not underestimate the power of cultural change, or the ability to create a culture that empowers teams to do the right thing, rather than enforcing them.

Many large enterprises in Europe have created processes and structures that deliver well but slowly. Over the past 10 years the application of DevOps-led strategies has enabled a certain unpicking of these processes and structures, but the current pandemic has accelerated the urgency of agility and the need to move with speed. Organizations had to learn quickly; projects such as the rollout of enterprise collaboration tools that would normally take two years were rolled out in two weeks. This hyper-responsiveness in the way things have been done in the past few months is now setting the benchmark for how to operate from here on out.

This organizational learning will stand companies in good stead even after offices reopen. Individuals may choose to work from home part time for a better work-life balance, or the organization may even make a conscious choice to hire remote workers. Some companies may even reconsider the need for a permanent office, as opposed to meeting spaces rented for periodic sync-ups. Larger organizations will probably retain at least some physical locations, but on a hot-desking basis rather than assuming permanent occupancy.

The Journey to Agility

The Impact of the Pandemic on the Acceleration of Business Agility and DevOps

- **Remote work loves DevOps.** We're seeing DevOps accelerate as organizations race to adapt, with over 70% of large European organizations adopting and utilizing DevOps methodologies. IDC's European sentiment survey (June 2020) underlines how a third of large European organizations are leaning heavily on these agile software dev capabilities to respond to the current disruption at speed.
- **New proximity between teams.** Remote working sees existing silos and divides between engineering teams being eroded. While physical distancing and shutdowns were freezing some business teams, engineering teams across organizations in charge of the software delivery chain have been forced into connected thinking and working. Collaboration, communication, and coordination are the lifeline to orchestrate ongoing software delivery and support, with existing silos being torn down to operate and deliver for the business and its customers.
- **Cut costs and avoid cash out where possible.** The focus has shifted to cost optimization strategies. Organizations have transitioned resources and investment to where business value creation was achievable. For many this means augmenting digital platforms and rapidly adapting customer support and sales channels with digital solutions.
- **Measuring software delivery.** Measuring software delivery at velocity and quality in the past was mostly focused on operational efficiency. The pandemic has accelerated the delivery of digital services but has also shifted the measurements toward the client, customer, and patient experience and the ongoing revenue generation for a company. Interest in and adoption of value stream management (VSM) has pivoted from a nice-to-have to a must-have as members of the software delivery chain can analyze and visualize critical parameters throughout the software delivery pipeline. According to the DevOps Institute, 19% of global enterprises have adopted VSM in 2020.

- **Need to evolve governance for local decision making.** There is an ongoing struggle to get the governance processes for DevOps right. IDC's DevOps 2019 survey, for instance, showed that over 70% of European organizations identified DevOps processes, governance, monitoring, and management as a critical area for investment. The past few months have accelerated the need to quickly adjust governance models, and we have seen organizations make changes on the fly as teams shifted remotely. Governance processes are being reengineered to provide the right balance between team autonomy and standardization. For many, agile is the means and DevOps is the target.
- **Technical and architectural choices have a debt cost.** As the crisis demands pragmatic and immediate resolve, there is less scrutiny on a series of DevOps choices affecting the future state, shape, and longevity of app landscapes. Oversight may be relaxed slightly as development teams are permitted access to new dev environments and tooling, and there may be less pressure to comply with strict designs and past corporate technical choices. While new projects and new tooling may fix immediate problems and keep the business resilient, organizations may later find themselves in complicated terrain if impromptu choices today have a negative impact on architectural and/or tooling consistency. Being conscious of technical debt accumulation and the spiraling complexity that can emerge when managing and evolving app architectures and tooling landscapes later is very important.
- **Outside-in thinking.** The discussion about outside-in thinking, to look at the customers from their perspective, is not new. However, implementation has been slow, to say the least. Too many organizations are managed from the top with strategies, goals, and products that don't aim to improve the existing customer experience. COVID-19 has changed that by putting those who know what needs to be changed or innovated in control, as they are close to the organization's customers or consumers. Priorities in terms of what gets done lie with product teams leveraging methodologies such as agile, DevOps, Holacracy, and Chaos Monkey to adapt faster and take advantages of opportunities as they arise. (Who decides what to drop? What are the roles that need to be in place to manage?)
- **Team KPI evolution.** As teams shift focus to customer and employee experience, key performance indicators evolve. The challenge of what to measure still prevails in many organizations, with focus on the company instead of the outcome. An example of a company-focused KPI is the mean time to resolve (MTTR), which gives an indication of how effectively the team can resolve an incident. A customer does not care about this, but cares about the first-time resolution of an issue (which might be related to the incident the operations team is working on). The point is that these metrics have to connect to make sense in the times we are in and beyond.
- **Culture matters, but empathy fuels good culture.** Creating cultures of high trust and safety, collaboration, enabling continuous experimentation, improvement, and upskilling are key investments that support DevOps return on investments. To lead or change culture, individuals and leaders must have empathy. Our current framework reference across the world is the pandemic, and this has made us more empathetic. This is true for all of us, no

matter our company, role, culture, or country. The good news is that we can take that empathy with us to the next state to help us build and change the culture of our teams, organizations, and ourselves.

- **Keeping the company in an operational state is someone's job.** Applications and software are created, changed, or modified via multiple functional groups who weave their work together to deliver a product. As velocity, quality, value, and risk are key metrics for software delivery, the rubber hits the road when things don't work and customers have issues. The practice of site reliability engineering (SRE), with the goal of creating scalable and reliable applications, has risen significantly. This left-shifting of operational knowledge and practices reduces issues before they happen and strengthens the release and deployment aspect. It will also help organizations move toward agile and DevOps, if they see immediate improvements in reliability.

As organizations tackle the pandemic and make their way through the DevOps agenda, core focus areas will become evident:

- **Building and accelerating digital capability.** The world has digitally transformed in the past few months as much as it did in the past three years. The acceptance of digital has been catapulted forward. As a result, organizations are looking at how to balance critical capabilities. We're witnessing a transition from outsourced to insourced development models as we see the flip back to rebuilding full-stack engineering teams. Talent and capability mapping become critical to getting this resource balance right.
- **Co-creation — eco-systemic thinking.** There is growing recognition that future organizational success looks very different. Customer, partner, and supplier engagement models are evolving, with roles changing and blurring. Organizations are prioritizing finding creative solutions to address talent and resource shortfalls, and this will only accelerate.
- **Reuse and automation.** To achieve scale, reuse and automation become critical. What are the common things that each team needs? To reap the benefits of enterprise scale, organizations are focusing on what they can reuse and where. For many, this is a tech responsibility, as the end goal or requirement is to make these capabilities self-service and automatable.
- **Security, governance, and compliance.** To enable digital innovation at scale and for DevOps to become business as usual organizations are rethinking how products and services are funded, governed, and compliant. The end goal is to enable teams to both make secure decisions and develop digital products and services securely. Clear guidance and available resources beat adversarial audits and overly rigid enforcement.
- **Ability to scale innovation.** Currently, two-thirds of European CEOs at large organizations rate the ability to deliver innovative services and experiences at scale as a key priority over the next five years. Solid game plans need to be in place that can tie software delivery strategies to organizational strategy and operations. Architecting the vision, understanding the opportunities, addressing modern app architectures and deploy options, as well as

mapping resources (dev talent, code, automation, security, etc.) and the ability to distribute innovations, lie at the core.

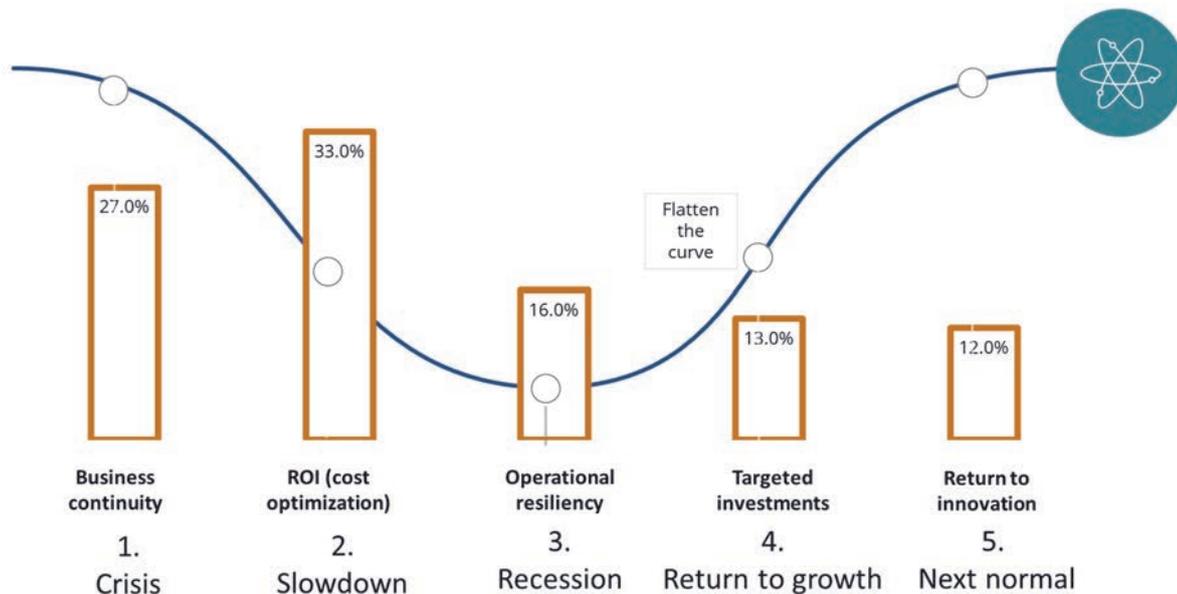
- **Business partnership/alignment with technology.** Some companies "get" it, and business and technology are working seamlessly together. But in others IT remains an island, and the current crisis has only accentuated that. Technology must be more visible in terms of the business value it delivers or how it positively impacts growth and customer experience.

The Pivot to the Next Normal

During the three-hour workathon session and while debating what's changed and what's accelerated as a result of the pandemic, we also wanted to provide guidance on how organizations can prioritize for the next normal.

We thought about the role that DevOps can play in helping to both smooth the curve to recovery and accelerate the return to innovation. Many European organizations see themselves as being in the downward part of the curve — slowdown and recession (see Figure 1). In the short term, teams are working to recalibrate priorities, with greater emphasis on code optimization, maintenance, and security than on net-new code underpinning pre-crisis innovation projects. Here the focus is on cost optimization and business and operational resiliency. But it is here that the rapid rollout of digital products and services has been critical in meeting customer requirements in the short term and maintaining the competitive stance of the organization.

FIGURE 1
Prioritize for the Road to the New Normal



Q. Of the following choices, which one best describes where your organization currently is?

Source: IDC EMEA Sentiment Survey, Wave 7, June 26–July 5, 2020; n = 232, only 500+ FTEs

Our debate focused on what organizations should be doing now to accelerate agility and shorten the time to recovery. We considered behavioral patterns and strategies, core priorities, and critical focus areas.

Many European organizations have come to realize that business as usual is not working and that in many cases they're not operating or doing things in the optimal way. This has come to light as organizations have been forced to take a step back and quickly assess how to do things faster and more effectively. This is a clear message that organizations should take the time to assess processes more effectively on an ongoing basis and stop doing things in such a rigid way. All of us need to ask questions more often: Are we doing this in the optimal way? What do we need to do to optimize more? What learnings can we take forward? Can we maintain momentum?

Organizations set up to make rapid adjustments and execute in short sprints have an advantage. Think of the "FAANG" companies or other high-performing organizations such as BBVA and Adidas. If we're being realistic, though, this is only an aspiration for most organizations, or such capabilities are confined to pockets of the organization. But we can't go backward — and there is the realization that we can move faster. European organizations now need to plug into the learnings of the past few months to adapt and move forward.

One point we debated was around the creation of "guerilla" teams — cross-functional teams that get stood up for a specific purpose, rather than a formal department being established. These teams spin up when needed, but are torn down after. This approach can work well in the experimentation phase, but the trick is to get people and processes to stick — encouraging accelerated learning and shifting to a more empowered organization. The question becomes how quickly organizations can shift from guerilla teams (which are inherently individual) to a more collaborative full-scale approach and the organizational diffusion of agile. We see this as the inflection point between attaining short-term business optimization and resiliency goals and setting the organization on the path to accelerated innovation and agility.

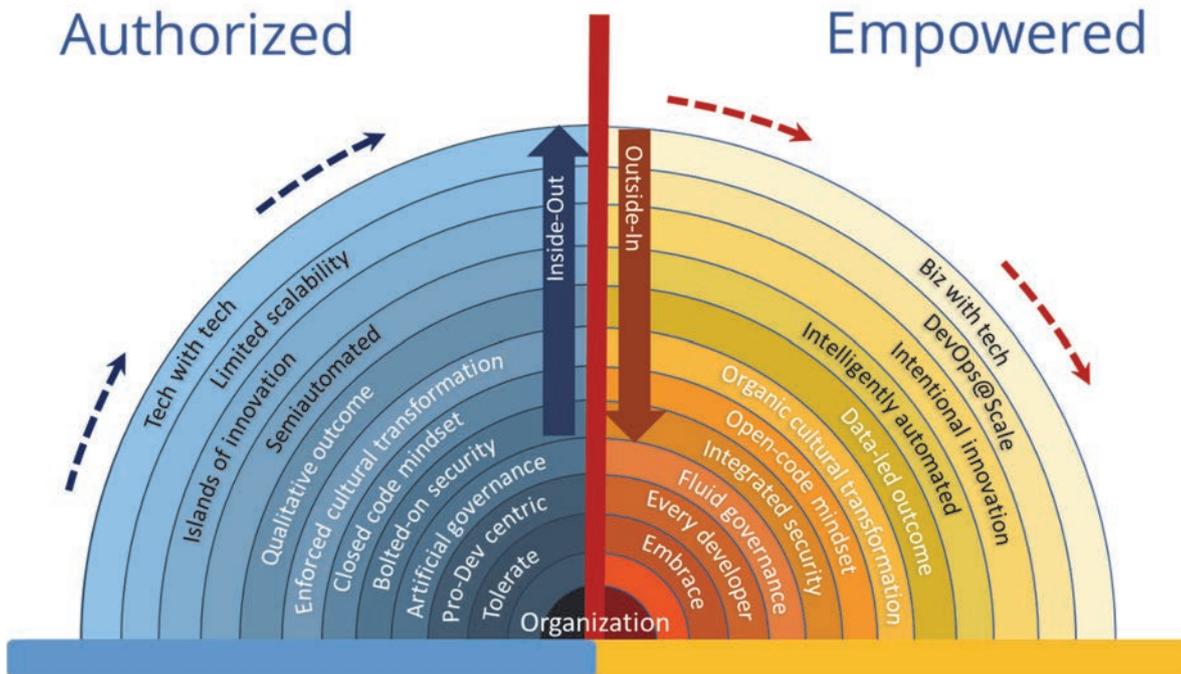
The Journey from Authorized to Empowered Teams

Every organization must evaluate how to adapt technology strategies to support business change, operational resiliency, and digital response. An organization's ability to rapidly develop digital innovation (digital products and services) is clearly recognized as a core competitive requirement. In thinking about the way forward, organizations will need to think carefully about the organizational, technology, and process design changes that need to be made to successfully navigate this transition. We debated some of the most important changes that organizations will need to make if they want to evolve from prescriptive, authorized structures to empowered organizations. Let's be clear: This transformation is very much deliberate and by no means accidental — it must be carefully planned, engineered, and fine-tuned.

Figure 2 summarizes the organizational characteristics that define the evolution from authorized to empowered DevOps organizations. Most organizations are currently in the authorized blue zone on the left, for the reasons identified in the blue circles. As teams move from being authorized to empowered, they also shift from having an inside-out to an outside-in or "customer first" view of their product development, and with that needs to come a transformational cultural shift.

FIGURE 2

Evolution in the DevOps Product-Led Universe: From Authorized to Empowered Organizations



Source: IDC's European DevOps Research Innovation Council

What Organizations Need to do to Accelerate Agility and Adaptation to Shorten the Time to Recovery

- Value learning over prediction.** Organizations should tear up their five-year plans. Emphasis should be on shorter, iterative approaches that can be more readily assessed and reassessed. Yes, there should be a "north star" that drives the mission and vision, but the strategy should be based on "learn versus plan." We can no longer assume that we can plan years out. We need to be focused on continually learning and adapting, and the end goal should not be set in stone if we want to play the long game. It's vital for organizations not to lose sight of the key objective: operate tactically but don't forget the strategy.
- Stand up continual learning.** Instead of trying to force existing structures and processes into an agile mold or superficial imitation of agile practices, it's better to reevaluate what approach is fit for purpose now that the first emergency has passed and planning for at least the medium term is required. Small experiments must run continuously and results be evaluated honestly — on the basis of business impact, not orthodoxy toward previously adopted practices.
- Focus on a DevOps-led business strategy.** It is not enough just to have DevOps understood within the IT perimeter, and while many organizations are working mostly to fit and scale that across the corporate IT domain, the focus should be on embracing DevOps as a framework for the business. Organizations should make more of their learnings from the DevOps culture at play and push these out into the wider business. BizTech is being talked

about more frequently, but there's still a wide gap between what is reality and what is a truly integrated and aligned business and technology strategy.

- **Look to an API mentality.** It's important to reshape internal mindsets with a view toward an API mindset versus an application-ready mindset. An API mentality starts with an approach where enterprise assets are broken down into nano value streams. Granularity is a key attribute of the API mindset, as is the "API-fication" of the enterprise where the aspiration is for every atom in the organization to become API enabled. With such an approach, digital assets are being composed and recomposed iteratively and continuously. Under an "API mentality," value is being put to work across multiple points of the organization or between parts of the internal organization and external parties.
- **Change the thinking on how fast things can be done.** The perception of IT as being overly slow and cautious was due to valid concerns on the part of IT — many of which no longer apply. What's the worst that could happen, right now? Instead, IT needs to engage flexibly with business needs, proposing solutions in a new way: not the perfect solution for the next five years, but a minimum viable product that works now and from which both business and technical learning can be extracted. These MVPs can evolve and be iterated upon, or even abandoned if circumstances change, without having to throw away the results of long planning, design, and development projects.
- **Invest in human skills.** The changing world of technology will require us all to become more adaptable and agile, but it will also free up time. Automation will replace manual skills, and leveraging AI and machine learning will replace basic cognitive skills. Now is the time to invest in social and human skills, including advanced cognitive skills, to support an organization's strategic goals.
- **Prioritize more, but remember to say no more too.** This one seems quite straightforward, but as we all know, it can be hard to say no. What we should be working toward is how to prioritize with informed, well-balanced decisions that also include a focus on what to stop or what to say no to. There are two sides to this. Firstly, we need to be able to ask if this will add value to the business. Secondly, we need to recognize the boundaries of our cognitive load or our teams' cognitive load and question whether the acceptance of another activity will accelerate or strain team performance.
- **Focus on leadership.** In the words of the Godfather, these are not normal times, and organizations may find they need different leadership — a wartime *consigliere*. In normal times, leadership is about forecasting, coming up with a plan, and flawlessly executing it. In times when circumstances change so rapidly, a rigid plan is a liability, so successful leaders will be those who can leverage a combination of "hard" and "soft" skills to analyze a situation and pivot quickly to take advantage of opportunities and minimize dangers. Breaking down a rigid five-year plan into more flexible scenario planning will be invaluable to both identify inflection points and shepherd the organization successfully through this transition. Such a leader will be able to motivate teams through constant tactical changes by communicating and guiding toward a common strategic goal.

- **Invest in your heritage.** Organizations spend a lot of energy (and rightly so) on attracting and retaining new engineering talent, particularly as a shortage of app development skills remains acute across Europe. The talent shortage is high on the business and IT agenda and accelerates topics such as application delivery automation, onboarding of new profiles of developers, and new types of development platforms (i.e., low/no-code). It also begs the question of how we can tap into the organizational heritage, shine a light on the mainframe talent that exists, and bring them into the "DevOps" fold. We should focus on how we can utilize our heritage and plug into skill sets that are typically very loyal to the company.
- **Don't get caught up in the framework conundrum — the framework war is over.** Customer and employee experience and customer and employee safety have become the major goals for all organizations, and will remain so in the next normal. Discussions about frameworks, methodologies, and best practices are best served by focusing on achieving these goals.
- **Have more fun.** While technologies such as virtual reality, robots, and space travel might provide us all with opportunities to have more fun, they also need a lot of "fun coupons" — money. Having more fun, however, does not need to cost anything and can make our lives happier, specifically now and in the next normal. Look back and see what fun you had before COVID-19 and see if you can trump it, because you're worth it.
- **Engineer for the enterprise, not a start-up.** Organizations need to focus on reuse wherever possible — not just the technology and product components, but everything common to each successful team. This means developing the right culture across teams that empower engineers to do the right thing — rather than telling them. Creating a common culture across mode 1 (IT) and mode 2 (DevOps) engineers, for instance, will help break down the silos, which is imperative for greater agility and innovation. An empowered culture has to be achieved that creates a healthy balance between standardization to fit the business and freedom to push creative boundaries.
- **Avoid the "island of misfit toys" effect.** The organization's immune system may try to isolate the new approach. Reaching the right balance between toolchain simplification and the freedom to experiment is hard, but get it right and software delivery performance can accelerate enormously. Provide guidance and playbooks that empower teams to make informed choices about the tools and technologies they use.
- **Concentrate on diversity and inclusion.** Flattening hierarchies between developers and other stakeholders is important to help multidisciplinary teams work cohesively. Reskilling and continuous learning is also important for the renewal of skills and continued relevance of developer teams to ensure you have the right talent mix to draw on as needed. For some it will also be about being prepared and being able to unlearn old patterns, approaches, and technologies.
- **Build a community mindset and a feeling of togetherness.** We've all had to transform our personal and business lives during the pandemic, and when life changes so dramatically,

each of us becomes part of a global community, reflecting the same type of challenges and thinking, and becoming less competitive.

- **Be open, trusted, sustainable.** As the world becomes more networked and companies work together to serve end customers and generate added value, walled-garden business models will struggle to survive. Because the network of digital relationships will only grow more sophisticated, complexity can be addressed with more open standards, open frameworks, open APIs, and open code. To drive engagements with external communities and partner prospects, organizations will need to become trusted and trusting by cultivating and curating their relationships in the digital realm. Reshaping internal mindsets to contribute to external digital communities and not just taking advantage of them is also important to build reputation and perception in digital spaces.

Contributors



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Jennifer Thomson leads the Accelerated App Delivery Practice for IDC in Europe, providing insights on the investment strategies and decisions of enterprises as they transition to modern application delivery architectures. Her research explores the new rules for apps dev and deploy in a digital economy, and how this impacts enterprise IT organizational structures, culture, processes, tools, and skill sets. She also looks at end-user strategies, investment priorities, and KPIs to enable cloud-first, DevOps, and agile solution delivery.



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George Mironescu co-leads IDC's Accelerated App Delivery practice in Europe. He provides advice on a range of domains, including application transformation, cloud-native software development and deployment programs, open source communities, and modern application delivery frameworks. He has worked in the software and IT services industry for over 15 years.



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John O'Brien focuses on the disruptive challenges and opportunities for application services providers as they pivot to "the new," underpinned by exploiting digital technologies such as AI, automation, analytics, and intelligent platforms, to deliver enhanced customer outcomes. He is a core member of IDC Europe's Accelerated App Delivery practice, and co-leads IDC Europe's intelligent process automation practice, assessing the paradigm shifts in application delivery, via DevOps, microservices, cloud-based delivery, and low-code/no-code apps.



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Dominic Wellington analyzes the data platform market and helps to position the value to businesses and developers of MongoDB's flexible and cloud-based offerings. He has been involved in the enterprise IT industry for a number of years, most recently in marketing and communicating the value of integrating AI and machine learning into IT operations (now known as AIOps). Previously, he worked across EMEA on strategic SecOps and cloud projects.



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Eveline Oehrlich conducts research on topics focusing on DevOps as well as business and IT automation. She was VP and research director at Forrester Research, where she led and conducted research around a variety of topics including DevOps, digital operational excellence, IT and enterprise service management, cognitive intelligence, and application performance management for 13 years. She has advised leaders and teams across small and large enterprises on challenges and possible changes to people, process, and technology.

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